REMARKS/ARGUMENTS

Claims 13-27 have been cancelled without prejudice, claims 28-32 remain pending without amendment and new claims 33-47 have been added by this Amendment. No new matter has been added and reconsideration of claims 28-47 is requested in view of the following comments.

Representative, non-limiting support for the new claims is identified as follows:

Claim 33: Specification at page 3, lines 4-24, page 5, lines 10-13 and page 6, lines 18-22, and Figure 1.

Claims 34 and 44: Specification page 3, lines 16-24, and page 4, lines 6-10 and Figures 2 and 3.

Claim 35: Original claim 1, specification at page 3, lines 4-24, and page 6, lines 18-22, and Figure 1.

Claim 36: Original claims 6 and 9 and specification at page 6, lines 3-5 and page 7, lines 18-22 and Figures 4 and 5.

Claim 37: Original claim 7 and specification at page 7, lines 3-5.

Claim 38: Specification at page 6, lines 18-22 and Figure 1.

Claim 39: Original claim 3 and specification at page 4, lines 6-10.

Claim 40: Specification at page 4, line 22 – page 5, line 2.

Claims 41 and 47: Specification at page 4, lines 11-13.

Claims 42 and 45: Original claims 1 and 2, specification at page 3, lines 4-24, and page 6, lines 18-22 and Figure 1.

Claims 43 and 46: Original claims 6 and 9, specification at page 5, line 23 – page

6, line 11 and Figures 4 and 5.

With respect to the limitation in claims 42 and 45 "wherein if the vehicle engine has a throttle valve, the piezoelectric sensor is disposed upstream of the throttle valve," as indicated by page 3, lines 7-9 of the specification, gasoline engines generally have a throttle valve, whereas diesel engines generally do not have a throttle valve. However, the present invention is applicable to both types of engines. Thus, with respect to claims 42 and 45, if the intake manifold does not include a throttle valve (e.g., many types of diesel engines), the pressure sensor can be disposed anywhere in the intake manifold. On the other hand, in claims 42 and 45, if the intake manifold includes a throttle valve (e.g., many types of gasoline engines), the pressure sensor is advantageously disposed upstream of the throttle valve, as discussed at page 6, lines 18-22 of the specification. Thus, the form of claims 42 and 45 is believed to be clear and proper in order to cover these two alternate embodiments that have at least one property in common. See e.g., MPEP 2173.05(h) ("Alternate expressions are permitted if they present no uncertainty with respect to the question of scope or clarity of the claims.")

Because claims 13-27 have been canceled, the rejections of these claims in the Office Action mailed August 25, 2004 are moot..

However, pending claim 28 was rejected as lacking novelty over Miller (US 5,237,617) and claims 29-32 were rejected as being obvious over Miller in the Office Action mailed August 25, 2004. Applicant respectfully traverses these rejections for the following reasons.

Miller discloses a "sound effects generating system for automobiles" and the object of Miller is to provide a system in which the engine sounds heard in the vehicle cabin mimic the engine sounds of another type of automobile.

In order to achieve such a system, Miller provides a memory that stores engine sounds of one or more other automobiles and/or purely electronic engine sound generating means. For example, a "control signal" is provided by a "personality module [38] which has been programmed to produce the engine sounds of, for example, a Bugatti." Col. 2, lines 53-57, see also col. 4, lines 15-27 and col. 5, lines 64-65. This control signal is then modulated in a digital synthesizer (32) based upon operating conditions determined by an analyzer (11). Col. 2, lines 57-61, see also col. 4, lines 38-46 and col. 5, line 66 – col. 6, line 4.

Thus, Miller operates in a fundamentally different manner than the presently claimed inventions. More specifically, as indicated at col. 5, lines 46-57, Miller relies upon a stored data file containing pre-recorded engine sounds and/or purely electronic means to generate the base engine sounds. Then, based upon detected operating parameters, these base engine sounds are modulated by analyzer 11 in order to generate the fake engine sounds that will be emitted in the vehicle cabin.

On the other hand, the presently claimed inventions rely upon a pressure sensor to generate the base engine sounds. While these base engine sounds also may be modulated based upon operating parameters in the present invention, the source of the base engine sounds is based upon detected pressure fluctuations rather than pre-stored engine sounds and/or purely electrical sound generating means.

Thus, claim 28 distinguishes from Miller for at least the reason that Miller does not describe or suggest: "an amplifier in communication with the pressure sensor and being arranged and constructed to generate signals representative of engine sounds based upon said pressure fluctuations detected by the pressure sensor." Further, claim 35 distinguishes from Miller, because Miller does not teach that "the pressure sensor generates signals representative of the noise of the engine." Similarly, because Miller does not teach a piezoelectric element that generates sounds emulating the engine noise, it is believed that claims 42 and 45 also distinguish from Miller.

In addition or in the alternative, claims 42 and 45 distinguish from Miller, because Miller only discloses placing a pressure sensor on a vacuum line. See col. 5, lines 11-18. Of course, the vacuum line must be located downstream of a throttle valve and for engines that do not have a throttle valve, there is no vacuum line. Therefore, claims 42 and 45 distinguish from Miller for this additional reason.

Thus, it is believed that claims 28-47 patentably distinguish from Miller.

It is further submitted that Miller may not be utilized as a basis for a prima facie obviousness rejection in view of MPEP 2143.01, which states in pertinent part:

> "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious."

Because the presently claimed inventions rely upon a completely different signal source for generating the base engine sounds, the principle of operation of Miller is quite different. Any changes to Miller to achieve the presently claimed inventions would

necessarily change the principle of operation of Miller.

Moreover, because Miller's object is to generate engine sounds that mimic different engines, whereas the presently claimed inventions seek to generate engine sounds that are representative of the engine, Miller teaches away from the present invention (MPEP 2141.02) and consequently, a skilled person would not have been motivated to utilize the teachings of Miller to achieve the present invention.

Finally, for the record, Applicant does not acquiesce to the statements made at page 4, lines 5-11 of the Office Action mailed August 25, 2004. First, nothing in the paragraph at page 4, lines 11-16 of the present specification indicates such use of piezoelectric sensors is "well known." Second, the Applicant's own description of the preferred embodiment can not be utilized against the Applicant to make an obviousness rejection. MPEP 2143 ("The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure." (Emphasis added)). Third, the particular piezoelectric sensor disclosed at page 4, lines 11-16 was commercially sold as a sidecrash collision sensor (i.e., an acceleration detector). These sensors were not commercially sold for the purpose of generating audible sounds. Thus, it was particularly surprising that the preferred pressure sensor produced highly representative engine sounds when utilized for a different purpose than was intended by the manufacturer.

As all rejections are believed to have been overcome, an early Notice of Allowance is earnestly solicited. However, should the Examiner have any further comments or suggestions, the undersigned would very much welcome a telephone call

in order to resolve any outstanding issues and to move the application into condition for such early Notice of Allowance.

Respectfully Submitted,

Robert W. Becker, Reg. No. 26,255
for applicant(s)

ROBERT W. BECKER & ASSOCIATES
707 Highway 66 East, Suite B
Tijeras, NM 87059
Telephone: (505) 286-3511
Facsimile: (505) 286-3524
RWB:mac